

DWR Climate News Digest

November 19th, 2012 - January 10th, 2013

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The information provided herein is a selected compilation of recent popular news articles, publications, and other information relevant to climate change and water management. The links provided herein are intended to provide educational and thought-provoking material for water managers and water users.

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TOPICS [Find older items in the [Climate News Archive](#)]

Reports

[Climate Change Indicators in the United States](#) [US EPA - December 2012] (*"Observations across the United States and the world provide multiple, independent lines of evidence that climate change is happening now"*)

[Colorado River Basin Water Supply and Demand Study](#)
[US Bureau of Reclamation – December 2012]

[Global Sea Level Rise Scenarios for the United States National Climate Assessment](#)
[NOAA - December 2012]

[Climate Impacts on the Winter Tourism Economy in the United States](#)
[NRDC/Protect our Winters - December 2012] (*more than 3/4 of states benefit economically from winter sports and nationwide over 200,000 jobs are either directly or indirectly supported by the ski/snowmobile industry*)

[Policy Implications of Warming Permafrost](#)
[United Nations Environmental Program - November 2012]

[World Energy Outlook 2012](#) [International Energy Agency - November 2012]

Published Literature

[The past as prelude to the future for understanding 21st century climate effects on Rocky Mountain trout](#) [Fisheries – December 2012]

[Downscaling future climate projections to the watershed scale: A north San Francisco Bay case study](#) [San Francisco Estuary and Watershed – December 2012]

[A reconciled estimate of ice-sheet mass balance](#) [Science - November 2012]
(abstract only; subs. required)

[Comparing climate projections to observations up to 2011](#)
[Environmental Research Letters - November 2012] (*results show "global temperature continues to rise in good agreement with the best estimates of the IPCC" and "rate of sea-level rise of the past few decades...is greater than projected by the IPCC models"*)

[Adapting to a warmer world: No going back](#) [Nature - November 2012]

[Food benefit and climate warming potential of nitrogen fertilizers uses in China](#)
[Environmental Research Letters - October 2012]

Sea-level Rise and other Ocean Impacts

[Natural relationship between carbon dioxide and sea level rise documented](#)
[Science Daily – January 2013]

[Humans changing saltiness of the seas](#) [Discovery News –December 19, 2012]

[Northcom strives to promote safe, secure Arctic](#) [U.S. Dept of Defense - December 17, 2012]

[Can the oyster industry survive ocean acidification?](#) [High Country News – December 10, 2012]

[Arctic's record melt worries scientists](#) [Live Science - December 6, 2012]

[Projections of sea level rise are vast underestimates](#) [New Scientist - November 29, 2012]

[New study affirms ice-sheet loss estimates in Greenland, Antarctica](#)
[Washington Post - November 29, 2012] (*melting ice sheets are contributing to 1/5th of the total global sea level rise and Greenland and Antarctic regions are now losing mass three times faster than they were 20 years ago*)

[Ice sheet loss at both poles increasing, major study finds](#) [NASA - November 29, 2012]

[Sea rising 60% faster than UN forecast: study](#) [AFP - November 28, 2012]

[California confronts a sea change](#) [LA Times - November 27, 2012]

Agriculture/Food Production

[Climate change will mean more malnourished children, experts say](#)

[Climate Central - December 10, 2012] *(the world needs a 75-90% increase in food production by 2050 to feed a growing population, but climate change could reduce yields worldwide by 5-25% over the same period)*

[Climate change threatens French wine](#) [CNBC – January 2, 2013]

General Water Management

[Climate change could cut Western water runoff by 10%](#) [LA Times – December 26, 2012]

[Groundwater pumping and irrigation have similar effect to climate change](#)

[Environmental Research Web - December 6, 2012]

[Water resources management in a changing world](#)

[Homeland Security News Wire - November 27, 2012]

Floods

[The Coming Megafloods](#) [Scientific American – January 2013]

Drought

[U.S. drought expands in Kansas, Oklahoma and Texas](#) [Reuters – December 13, 2012]

Water/Energy Nexus

[Preventing climate change: The size of the energy challenge](#) [Eurekalert – January 7, 2013]

Wildlife and Ecosystem Impacts

[The climate change conundrum: What the future is beginning to look like for wildlife](#)

[National Geographic – January 10, 2013] *(the implications of climate change on Earth's biodiversity is discussed by two experts)*

[As climate warms, bark beetles march on high-elevation forests](#) [Science Daily – December 31, 2012] (*“Warming temperatures have allowed tree-killing beetles to thrive in areas that were historically too cold for them most years”*)

[NOAA lists ringed and bearded seals under Endangered Species Act](#) [National Oceanic and Atmospheric Administration – December 21, 2012] (*“Our scientists undertook an extensive review of the best scientific and commercial data. They concluded that a significant decrease in sea ice is probable later this century and that these changes will likely cause these seal populations to decline”*)

[Rising carbon dioxide levels make forests work overtime](#)
[National Science Foundation - December 17, 2012] (*the Harvard Forest in Massachusetts is taking up between 2 to 4 [billion] metric tons of carbon annually, a small but important fraction of the 30+ billion metric tons emitted globally each year*)

[Hummingbirds and climate change](#) [National Science Foundation - December 2012]

[Long-term research reveals how climate change is playing out in real ecosystems](#)
[Long Term Ecological Research Network - December 1, 2012]

[Animals are already dissolving in Southern Ocean](#) [New Scientist - November 25, 2012]
(*impacts from ocean acidification due to excess CO₂ in the atmosphere are visible in the shells of free swimming snails called pteropods*)

Greenhouse Gas Mitigation

[Towards reducing the greenhouse gas emissions of the internet and telecommunications](#)
[Science Daily – January 2, 2013] (*the information and communication technology industry contributes about 2% of global carbon emissions*)

[Laws of geoengineering to mitigate global warming?](#) [Science Daily - January 2, 2013]

[Agriculture and forestry key to mitigating climate change](#) [Voice of America – January 7, 2013]

[Geoengineering against climate change: Seeding the oceans with iron may not address carbon emissions](#) [Science Daily – December 19, 2012]

[North America leads shift in global energy balance, IEA says in latest World Energy Outlook](#)
[International Energy Agency - November 12, 2012] (*see the executive summary of the World Energy Outlook 2012 [HERE](#); it states, “no more than one-third of proven reserves of fossil fuels can be consumed prior to 2050 if the world is to achieve the 2 degree C goal...”*)

Climate Adaptation

South Florida climate change efforts move toward action stage

[Huffington Post - December 7, 2012]

International Planning

Cost of combating climate change surges as world delays: study

[Chicago Tribune –January 2, 2013] (*“An agreement by almost 200 nations to curb rising greenhouse gas emissions from 2020 will be far more costly than taking action now to tackle climate change...Quick measures to cut emissions would give a far better chance of keeping global warming within an agreed U.N. limit of 2 degrees Celsius (3.6F) above pre-industrial times to avert more floods, heatwaves, droughts and rising sea levels.”*)

Pinpoint climate studies flag trouble for Mexican, Central American farmers

[December 19, 2012]

Nature Climate Change: Action by 2020 key for limiting climate change

[International Institute for Applied Systems Analysis – December 16, 2012](*“In scenarios with lower energy demand growth, the researchers find a much greater chance that global temperatures would not rise more than 2 °C, with much more flexibility in the methods and technologies required to reduce greenhouse gases”*)

Poor to seek UN climate change compensation scheme in 2013 [Reuters - December 9, 2012]

UN climate talks in Qatar boost Gulf awareness

[Bloomberg Businessweek - December 10, 2012]

Carbon price communiqué [Corporate Climate Communiqués] (*letter signed by over 100 corporations, including Shell, asking for a global price on carbon emissions*)

BLOGS/Commentary

Robb Honeycutt on “**Lean manufacturing: Addressing climate change through reductions in waste**” [Climate Progress – January 4, 2013]

Jeff Masters on “**Top 10 weather events of 2012**”
[Dr. Jeff Masters Wunderblog – December 21, 2012]

Rachel Nuwer on “**What's your meme? Changing the climate change conversation**”
[New York Times - December 17, 2012]

Justin Gillis on "[A contrarian spin on the next big climate report](#)"

[New York Times - December 14, 2012]

Bob Inglis on "[A conservative, small government strategy for fighting climate change](#)"

[Forbes - December 10, 2012]

Joe Romm on "[What are the near-term climate Pearl Harbors? What will take us from procrastination to action?](#)" [Climate Progress – December 7, 2012]

Cynthia Tucker on "[Weathermen and climate scientists must live on different planets](#)"

[Penn Live - December 2012]

Additional Items of Interest

[2012 was warmest and second most extreme year on record for the contiguous U.S. \(State of the Climate\)](#) [National Oceanic and Atmospheric Association – January 2013]

[Study strengthens link between El Niño and climate change](#)

[Scientific American – January 4, 2013]

[Climate change in Hawaii, it's here](#) [Honolulu Weekly – January 2, 2013]

[Dear Mr. President](#) [MIT Technology Review – January 2, 2013]

[Climate change threatens Tahoe's snow levels and lake clarity](#)

[Mercury News.com – January 4, 2012]

[Arnold Schwarzenegger: Terminator, body-builder, and global leader on climate change](#)

[National Journal – December 30, 2012]

[2013: A tipping year for climate change?](#) [NPR – December 30, 2012]

[West Antarctica warming faster than expected](#)

[National Center for Atmospheric Research – December 23, 2012] *(In addition to offering a more complete picture of warming in West Antarctica, the new study shows for the first time that significant melt is occurring during summer)*

[Does melting ice cause volcanic eruptions?](#) [Red Orbit – December 19, 2012]

(“After studying data from over a million years in our Earth’s history, researchers at [GEOMAR Helmholtz Center for Ocean Research Kiel](#) in Germany and Harvard University have discovered periods of high volcanic activity often follow periods of quickly rising global temperatures.”)

[Innovations in ice drilling enable abrupt climate change discoveries](#)

[U.S. Ice Drilling Program - December 17, 2012]

[Book it: 2012, the hottest U.S. year on record](#) [Climate Central - December 13, 2012]

[The climate changers](#) [newreview.com - December 13, 2012]

[Filming on thin ice: Recording the devastation of climate change isn't easy](#)

[The Independent - December 12, 2012] *(former climate skeptic and photographer James Balog describes challenges he faced making the powerful documentary 'Chasing Ice', which documents rapidly melting glacial ice in Alaska, Iceland, Greenland and Montana)*

[Rising temperatures threaten fundamental change for ski slopes](#)

[New York Times - December 12, 2012]

[Climate conference renews Kyoto Protocol but looks to successor treaty](#)

[Scientific American - December 10, 2012]

[Earth may be warming even faster than expected \[slide show\]](#)

[Scientific American - December 9, 2012]

[Uneven climate change due to atmospheric heat capacity](#)

[Environmental Research Web - December 2012]

[20-year-old report successfully predicted warming: scientists](#)

[New Scientist - December 9, 2012] *[an analysis that compared projections in 1990 with 20 years of temperature records show that a 22-year old Intergovernmental Panel on Climate Change (IPCC) report, the first of four that have been produced so far, accurately predicted warming]*

[Ice sheet loss at both poles increasing, study finds](#) [NASA - November 29, 2012]

[Arctic permafrost is melting faster than predicted](#) [New Scientist - November 28, 2012]

[Qatar climate change summit this week: Any shift possible?](#)

[Sustainable Business - November 27, 2012]

[Will U.S. role at climate talks change after storm?](#) [SF Gate - November 24, 2012]

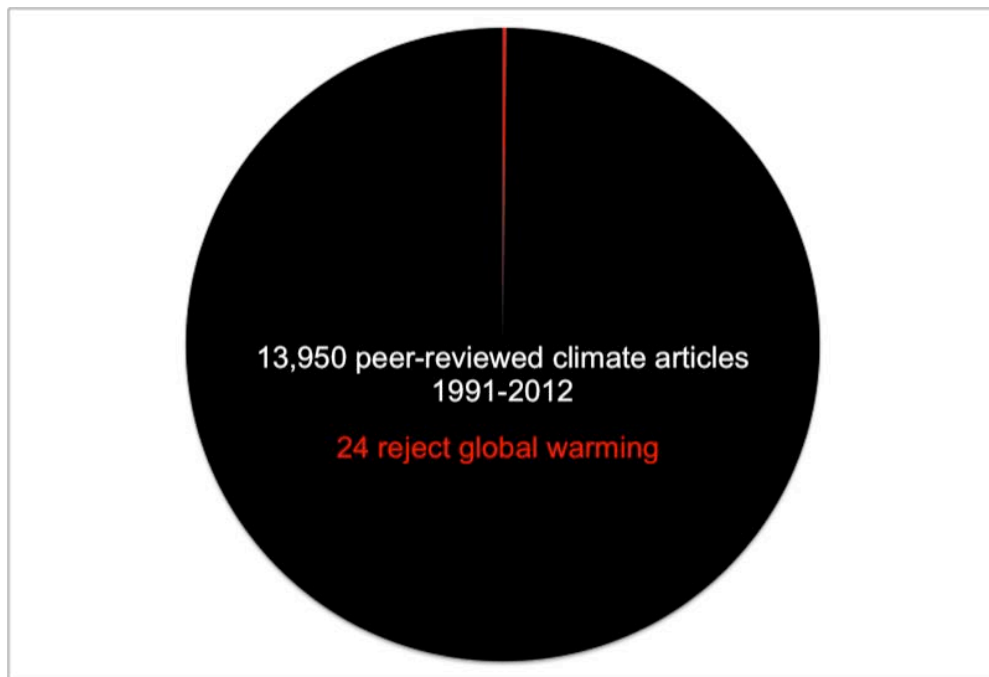
[Climate change back on the front burner...for some](#)

[Sustainable Business.com - November 21, 2012]

Images to Ponder



Image credit: <http://www.motherjones.com/environment/2012/10/hurricane-sandy-climate-change-sea-level-rise>



James Lawrence Powell – *Science and Global Warming* blog: <http://www.jamespowell.org/index.html>

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